

Title (en)

Optimized location for scroll compressor economizer injection ports

Title (de)

Optimierte Lage von Einspritzöffnungen bei einem Spiralverdichter

Title (fr)

Emplacement optimisé d'orifices d'injection dans un compresseur à spirales

Publication

EP 0922860 B1 20080813 (EN)

Application

EP 98308003 A 19981001

Priority

US 98722297 A 19971209

Abstract (en)

[origin: EP0922860A1] The locations of economizer ports (26,28) in a scroll compressor are optimized such that the ports supply supplemental fluid to compression chambers (33,35) prior to the outer seal points closing the compression chambers. Thus, the economizer port supplies fluid against a low average pressure and the amount of fluid injected from the economizer port is maximized. The location of the economizer port is preferably selected such that a wave caused in the compression chamber due to the injection of fluid from the economizer port does not reach the outer seal point until the outer seal point closes the compression chamber. Thus, there is no back flow from the economizer port toward the main suction chamber (30), and no corresponding reductions in the main suction flow. <IMAGE>

IPC 8 full level

F04C 18/02 (2006.01); **F04C 29/12** (2006.01); **F01C 1/02** (2006.01); **F04C 29/00** (2006.01); **F04C 29/04** (2006.01); **F25B 1/04** (2006.01)

CPC (source: EP US)

F04C 29/042 (2013.01 - EP US); **F04C 29/122** (2013.01 - EP US)

Cited by

CN109026683A; EP0980978A1; EP2578885A1; EP2578886A1; US2020018311A1; US11053939B2; GB2386646A; GB2386646B; US8997518B2; US6196816B1

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